



Comptroller General  
of the United States  
Washington, D.C. 20548

## Decision

**Matter of:** Silco Engineering & Manufacturing Company  
**File:** B-250012.6  
**Date:** May 7, 1993

William J. Spriggs, Esq., Spriggs & Hollingsworth, for the protester.  
Gregory H. Petkoff, Esq., and David H. Doro, Esq.,  
Department of the Air Force, for the agency.  
Susan K. McAuliffe, Esq., and Michael R. Golden, Esq.,  
Office of the General Counsel, GAO, participated in the  
preparation of the decision.

### DIGEST

1. Protester's assertion that it can supply satisfactory aircraft braking system component does not establish that the contracting agency's requirement for qualification testing (including those tests required of the original equipment manufacturer) before approval of the protester as a source is unreasonable where the part is reasonably determined to be critical to the safe, effective operation of the aircraft.
2. Protest challenging sole-source awardee's qualification for procurement of critical part is denied where agency reasonably determined that complete requalification of firm's product was unnecessary since transfer of ownership from previous qualified firm to awardee included all rights to relevant proprietary technical data of predecessor and there has been no change in plant location, personnel or processes of the qualified plant.
3. Air Force reasonably justified sole-source award, pursuant to 10 U.S.C. § 2304(c)(2) (1988), for F-16 brake piston assemblies to qualified firm where no other source, including protester, has qualified as an approved source of critical part; the limited number of pistons awarded under sole-source procurement is necessary--while Air Force completes qualification testing of protester's product--to meet agency's current urgent demand in light of agency's critical shortage of piston assemblies and the threatened grounding of aircraft.

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## **DECISION**

Silco Engineering & Manufacturing Company protests the sole-source award of a contract to Aircraft Braking Systems (ABS), under request for proposals (RFP) No. F42630-92-R-72367, issued by the Department of the Air Force, Ogden Air Logistics Center, Hill Air Force Base, Utah, for 4029 F-16 brake piston assemblies (P/N 5003721). The Air Force awarded the contract on a sole-source basis pursuant to the authority of 10 U.S.C. § 2304(c)(2) (1988) which permits an agency to use other than competitive procedures when the agency's need for the supplies is of an unusual and compelling urgency. Silco contends that the Air Force has improperly identified the piston as a critical part and unreasonably required the successful completion of all original equipment manufacturer (OEM) testing requirements in order for the protester to be qualified as an approved source of the pistons. Silco also alleges that the awardee does not qualify as an OEM for the purposes of this procurement; that the use of noncompetitive procedures was improper since Silco can also provide the brake piston assemblies; and that the Air Force's justification for a noncompetitive award resulted from the absence of advance planning.

We deny the protest.

## **BACKGROUND**

Goodyear Aerospace, the first OEM of the required F-16 brake piston assembly, was approved by General Dynamics in 1977 as a qualified source of the pistons (P/N 5003721). The OEM testing requirements for Goodyear, which encompassed the identification of the piston as a critical part, included General Dynamics Specification No. 162L001B, Critical Item Development Specification for Wheel and Brake Assemblies, and Military Specification No. MIL-W-5013H, General Specification for Wheel and Brake Assemblies.

Goodyear's aircraft brake division was acquired by Loral in 1987; it was subsequently acquired by K and F Industries in 1989, when it was renamed ABS. Due to the Air Force's limited rights to ABS' technical data for the pistons (P/N 5003721), the agency awarded a contract in 1987 to NASCO Engineering, Inc. to reverse engineer the F-16 brake piston assembly in an effort to promote future competition for the part. Under that contract, NASCO prepared manufacturing technical data and drawings (identified as P/N 8855255-10) and delivered 1,722 production units. In January 1990, a spare parts contract was awarded to Silco for 6,067 brake pistons on the basis of the NASCO technical drawings. Both the NASCO and Silco procurements required

first article testing, but due to agency error, neither contract expressly incorporated the original identification of the critical nature of the part or a requirement for full OEM qualification testing. The agency found numerous operational defects in the Silco and NASCO pistons due to inadequacies in the NASCO drawings.

In August 1991, Silco submitted a value engineering change proposal to correct the agency's inadequate drawings acquired from NASCO. In September, Silco submitted an unsolicited proposal to rework the protester's previously delivered pistons in accordance with Silco's proposed drawing changes. A contract was awarded to the firm on January 24, 1992, to remanufacture 3,859 of the pistons; the agency accepted the reworked pistons under P/N 8855255-10 in April. Silco's remanufactured pistons were then subjected to certain bench and dynamometer tests, including limited operational flight testing. Silco's reworked pistons successfully completed each of these tests. The Air Force, however, has never determined that Silco is an approved source of P/N 50003721 pistons (the subject of this procurement).

Shortly thereafter, in mid-1992, Air Force engineers discovered that during the competitive procurements of the NASCO and Silco pistons, the agency neglected to enforce the prior designation of the part as critical to the aircraft braking system. In light of the critical application of the pistons, the agency found that it had improperly failed to require complete flight worthiness certification for the item; the Air Force found that, as a critical part, alternate sources of the F-16 brake piston assemblies would be required to successfully complete all OEM testing requirements, including a 500-landing flight safety operational test. The Silco reworked pistons were subsequently removed from the agency's aircraft and placed in restricted storage. (A small number of the original NASCO and Silco pistons, however, are still in use due to the agency's inability to identify those pistons for removal from the aircraft braking systems.)

In light of its critical shortage of qualified pistons, the Air Force contemplated a sole-source contract for 9,608 pistons (P/N 5003721) from ABS. This proposed award of a contract was protested by the Small Business Administration (SBA) which challenged the identification of the part as critical and recommended that NASCO and Silco be allowed to compete for the requirement. The contracting office rejected SBA's recommendation; SBA filed an appeal of that decision with the Secretary of the Air Force. The procurement was suspended pending the SBA appeal.

In responding to the issues raised in the SDA appeal, the Air Force confirmed the critical nature of the required pistons. The agency reported that during the development of the F-16 aircraft, the brake piston assembly was considered a safety critical component, necessitating strict qualification requirements. The Air Force determined, pursuant to 10 U.S.C. § 2383 (1988), that for any firm to qualify as an approved source of the critical aircraft spare part, its product would have to successfully complete all of the OEM qualification requirements. Section 2383 provides, in pertinent part, that:

"[i]n establishing the appropriate qualification requirements [for any spare or repair part that is critical to the operation of an aircraft], the Secretary of Defense shall utilize those requirements, if available, which were used to qualify the original production part . . . ."

10 U.S.C. § 2383(a).

Here, the OEM qualification specifications require that used pistons (near or at the end of their service lives) meet the same performance standards as new pistons. As such, the OEM test specifications include a requirement that qualifying pistons successfully pass a 500-landing flight safety operational test. The protester's pistons have not completed this 500-landing test.

An economic analysis, performed by the agency in July 1992, considered the projected savings from future competitive procurements for the item compared to the costs involved in conducting the OEM qualification testing of the protester's part. This analysis revealed that even though Silco's pistons were substantially lower in price compared to ABS' pistons, it would take at least 3-1/2 years for the Air Force to amortize the cost of the 500-landing flight safety operational test of Silco's pistons. The agency initially found that this economic analysis failed to justify an expenditure by the agency of almost \$400,000 in order to conduct the OEM qualification testing upon Silco's pistons.

Silco's reworked pistons had successfully completed limited operational flight tests. (Some of these tests, the Air Force reports, would not have been conducted had the agency properly recognized the critical identification of the part, requiring further part testing prior to conducting flight tests.) Based upon their success during these limited tests, Silco's reworked pistons were approved by the Air Force for interim use "to preclude grounding F-16s," but the reworked pistons were only to be used for a period not to exceed 8 months, after which time they were to be removed from the aircraft.

In July 1992, the protester submitted an unsolicited proposal to the Air Force (as well as an agency-level protest to the contracting officer) claiming that Silco was a qualified source of F-16 brake piston assemblies. The Air Force rejected Silco's proposal and, by letter of August 18, denied Silco's protest. In that decision, the agency stated that Silco had been considered an approved source of P/N 8855255 pistons (which had been produced in accordance with the defective NASCO reverse engineering drawings), but that P/N 8855255 had been deactivated due to the drawings' technical inadequacies. The agency concluded that Silco was not a qualified source for P/N 5003721 pistons since the pistons were discovered to be critical parts and Silco's pistons had not yet completed all of the required OEM qualification tests.

Silco protested the agency's denial of its agency-level protest to our Office in August 1992. During the pendency of that protest, by letter of October 19, the agency resolved the SBA appeal regarding efforts to increase competition for the pistons required under the RFP. In that decision, the Acting Secretary of the Air Force (Acquisition) instructed Ogden Air Logistics Center, the contracting activity, to conduct the 500-landing flight safety test of Silco's pistons at government expense. Further, the Secretary directed that if a sole-source purchase of pistons must be made from the OEM (ABS) to cover the time required for the qualification testing of Silco's pistons and the preparation for a competitive procurement, the quantity should be kept to an absolute minimum.

We dismissed Silco's protest, by decision of December 9, after information was received from the Air Force confirming that a solicitation for the initially contemplated 9,608 pistons had not been issued; the protest allegations were premature. On January 5, 1993, however, the Air Force issued the current solicitation under which it proposed a sole-source award to ABS for 4,029 pistons. The agency determined that urgent and compelling circumstances existed, pursuant to 10 U.S.C. § 2304(c)(2), that justified the proposed sole-source award. This protest followed; the

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<sup>1</sup>Silco also protests the Competition Advocate's failure to sign the amended Justification and Approval (J&A) for the current procurement. Due to the unusual and compelling urgency of a procurement, the Competition Advocate's signature may be obtained after award. See Federal Acquisition Regulation (FAR) § 6.302-2. In any event, the record shows that the Competition Advocate did not object to an earlier prepared J&A for a sole-source award of a greater quantity of pistons from ABS and Silco has not shown how the firm has been prejudiced by this alleged omission.

protest, which incorporated all of the firm's previous protest allegations which were initially dismissed, was filed with our Office on January 12. On February 23, the Air Force advised our Office of its determination that it was in the best interests of the government to award the contract to ABS notwithstanding Silco's protest.

#### CRITICAL PART IDENTIFICATION AND REQUIREMENT FOR OEM TESTING

The protester initially challenges the Air Force's designation of the pistons as critical and the additional OEM testing requirements associated with that designation. Silco states that it previously competed for the agency's piston requirements without such stringent qualification testing requirements and that since the brake piston assembly has been in existence for decades, it does not warrant the "critical" classification. Silco contends that the qualification testing here is unreasonable because the multiple numbers of pistons used in the wheel brakes offer a certain measure of redundancy, the piston does not directly control the stopping of the aircraft, and the part is relatively less critical than other aircraft parts that do not require OEM qualification testing.

The Air Force reports that the brake piston was identified as a safety critical component by General Dynamics and the agency during the development of the F-16 in the 1970s and that the qualification requirements for the part are intended to ensure the safe and effective operation of the aircraft. The agency states that it also reviewed this critical designation in response to Air Force Policy Letter No. 91-05, dated March 21, 1991, which defined "critical" parts as "those which could compromise personnel safety, equipment safety or mission success if a failure occurred." The agency reports that a hazard analysis performed at that time confirmed that "locked brakes or no brakes," adversely affecting the ability to stop the aircraft, justified identifying the piston as critical to the safe operation of the aircraft. The Air Force states that it reexamined and confirmed the critical designation of the item; agency technical personnel reported that:

"[t]he primary function of the piston assembly is to apply pressure to the carbon disc heatstack which provides the deceleration function required to bring the aircraft to a halt and control its speed during ground maneuvers. The secondary function is to act as a brake adjuster which allows the brake assembly to accommodate carbon disc wear with minimal effects on the stopping capabilities of the brake. While the self adjusting feature may effect the 'feel' of the brake pedal the important fact is that if the

piston assemblies don't work, the aircraft won't stop. Obviously the pistons are therefore critical to the safe operation of the aircraft."

In cases involving source-controlled procurements, an agency may properly restrict the award of contracts to approved sources (but also give nonapproved sources a reasonable opportunity to qualify) where doing so is necessary to ensure the procurement of satisfactory end products or the maintenance of the high level of quality and reliability necessitated by the critical application of the product in question. See, e.g., Interstate Diesel Servs., Inc., B-230107, May 20, 1988, 88-1 CPD ¶ 480. In the absence of a showing that the agency's testing procedures for alternate items in an approved source procurement lack a reasonable basis, we will not disturb an agency's determination of the testing requirements. Id.

We see no reason, based upon the record before us, to object to the Air Force's critical designation or the agency's requirement for full OEM qualification testing. The protester's arguments that the pistons do not directly stop the aircraft, and that the redundancy of the design makes the pistons less critical than other components are insufficient to demonstrate that the agency's position lacks a reasonable basis. The record shows that the true service life of Silco's pistons has not been fully tested. If the pistons become operationally defective with age (i.e., which is to be evaluated under the 500-landing flight safety test at issue), insufficient pressure could ultimately be applied to the braking system's components responsible for decelerating and stopping the aircraft. In such a case, despite any claimed redundancy in the system regarding the inadequate parts (i.e., an inadequate part supporting another such inadequate part), the safety of personnel or equipment could not reasonably be assured. In conclusion, despite the protester's assertions that it can provide satisfactory brake piston assemblies without the need for the extended flight qualification testing, the record before us supports the reasonableness of the Air Force's critical designation and determination that OEM testing of the part is necessary to insure piston reliability and operational service-life. See B.H. Aircraft Co., Inc., B-222565; B-222566, Aug. 4, 1986, 86-2 CPD ¶ 143.

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<sup>2</sup>Although Silco challenges the propriety of the OEM qualification requirements for failure to prepare a J&A supporting those requirements, the record shows that the OEM test requirements, statutorily required due to the criticality of the part, were approved by the Acting Secretary of the Air Force in his decision on the SBA appeal on behalf of Silco. In that decision, the Acting Secretary

## QUALIFICATION OF ABS

Silco contends that the awardee, ABS (the successor of the predecessor OEM), is not an approved source because it has not completed full OEM qualification testing. Silco does not object to the OEM qualification status of ABS' predecessors.

FAR § 52.209-1(f), regarding qualification requirements, provides that:

"[a]ny change in location or ownership of the plant where a previously qualified product or service was manufactured or performed requires reevaluation of the qualification. Similarly, any change in location or ownership of a previously qualified manufacturer or source requires reevaluation of the qualification. The reevaluation must be accomplished before the date of award."

Basically, the agency must determine if the change of location or ownership of the plant (where the product which met the qualification requirement was manufactured) affects whether the source should continue to be identified as qualified. See FAR § 9.207.

The record shows that the Air Force reevaluated the OEM qualification after the change in ownership from Loral to ABS and affirmed that ABS was qualified as an approved source. Specifically, the agency's review of quality assurance audits showed that there was no physical change in location of the production facility, nor any changes in personnel or production process which would warrant the need for new qualification testing of ABS after the transfer of ownership from the predecessor OEM. All of the proprietary OEM technical data for the pistons were transferred to ABS in addition to the physical plant and equipment. The Air Force concluded that the transfer was one of title only and that full requalification of the piston was not warranted.

In corporate transfer cases, the contracting agency may look to the actual circumstances of the transfer to determine whether there have been changes in the factors that impact upon the quality and reliability of the product itself. In analogous cases, we have found that where there is merely a

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directed immediate OEM testing of Silco's pistons to increase competition and he directed that any sole-source award to ABS (the only firm with OEM qualification) shall be for a minimum quantity to meet agency needs until the completion of the qualification testing of Silco's product.



transfer of title to the plant facility and a change in a corporate name with no substantive change in employees, products, manufacturing processes or location, the successor corporation may be determined to meet the qualifying requirement. Magneco Inc., B-235338, Sept. 1, 1989, 89-2 CPD ¶ 207; Elliott Co.; Hardie-Tynes Mfg. Co., B-212897; B-212897.2, Jan. 30, 1984, 84-2 CPD ¶ 130. Since this case involves a similar corporate transfer, we see no reason to object to the agency's approval of an award to ABS; under these circumstances, there was no reasonable basis to require full OEM testing of ABS' pistons.<sup>3</sup>

#### PROPRIETY OF CURRENT SOLE-SOURCE AWARD

The Competition in Contracting Act of 1984 (CICA) provides for the use of noncompetitive procedures where the agency's need for the property or services is of such an unusual and compelling urgency that the United States would be seriously injured unless the agency is permitted to limit the number of sources from which it solicits proposals. 10 U.S.C. § 2304(c)(2). While CICA requires that the agency request offers from "as many potential sources as is practicable under the circumstances," 10 U.S.C. § 2304(e), an agency may still limit the procurement to the only firm it reasonably believes can properly perform the work in the available time, provided this limitation is justified. Environmental Tectonics Corp., B-248611, Sept. 8, 1992, 92-2 CPD ¶ 160; Magnavox NAV-COM, Inc., B-248501, Aug. 31, 1992, 92-2 CPD ¶ 143. Under no circumstances, may noncompetitive procedures be used on the basis of the lack of advance planning. 10 U.S.C. § 2304(f)(5)(A).

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<sup>3</sup>Silco also contends that ABS is not a qualified source based upon its piston's performance during a recent metallurgical test conducted to identify possible manufacturing defects prior to installation of pistons in brake assemblies; Silco pistons allegedly operated smoothly while ABS pistons allegedly did not meet certain technical order requirements regarding load displacement. The Air Force explains that although the Silco and ABS pistons "behave[d] differently" under the test, the results were inconclusive and insufficient to affect a firm's OEM qualification status. In any event, the Air Force reports that Silco's general allegations that ABS pistons cannot meet contract requirements will be examined during the Air Force's compatibility qualification testing of ABS pistons--which are to be combined with Silco pistons. The Air Force has reported that if the ABS pistons fail such testing, complete requalification of the awardee's pistons will be necessary.

We conclude that the Air Force had a reasonable basis for the sole-source award on an urgency basis. The record shows that the current urgency is the result of the agency's unsuccessful efforts to compete its piston requirements--efforts which began in 1987, when it awarded a contract to NASCO in 1989 to reverse engineer the OEM's piston. Based upon the NASCO drawings, the Air Force competitively procured 6,067 pistons from Silco. Performance problems associated with the Silco pistons led to additional testing by the agency; that testing confirmed the inadequacies of NASCO's drawings. Again, the Air Force attempted to achieve competition for its pistons by awarding Silco a contract in 1991 to rework its pistons in accordance with the firm's proposed drawing changes. The reworked pistons were delivered in April 1992, and the Air Force thereafter subjected them to limited operational and flight tests. The part was recognized as critical and the agency sought to remedy its previous failure to require OEM qualification testing for alternate sources during the earlier competitive procurements. Silco's pistons were then approved for limited, interim use. An economic analysis was then prepared which suggested that the expense of OEM testing of Silco's pistons was not justified. In response to Silco's complaint, the results of the economic analysis were reevaluated. A series of protests by Silco and the SBA were filed and resolved during the following 6 months--throughout which time, the agency suspended all initially contemplated sole-source awards to ABS. Once the Acting Secretary of the Air Force ordered full OEM qualification testing of Silco's pistons, the agency initiated the testing process.



Due to the events which resulted from the Air Force's good-faith, yet unsuccessful, attempts to compete its F-16 brake piston assembly requirements, the agency has a critical shortage of the pistons, well below its current (including back-order) demand. The Air Force had a legitimate urgent need to acquire the only qualified pistons available as soon as possible to meet its current minimum demand and prevent aircraft grounding, while the agency completes its full qualification testing of Silco's product.<sup>4</sup> Moreover, the above chronology shows that the urgency was not created by the Air Force's lack of advance planning; had the agency's previous efforts at competition been successful, the

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<sup>4</sup>Although dissatisfied with the Air Force's efforts to correct its earlier failure to require full qualification testing of Silco's pistons, the protester did benefit under the agency's actions leading to the current urgency since Silco received two contracts for a critical part it was not fully qualified to supply to the Air Force--its pistons had not completed the full OEM qualification testing required for critical parts.

agency's need to make an urgent buy to meet its demands would have been unnecessary. Accordingly, we have no basis to object to the use of noncompetitive procedures here.

The protest is denied.<sup>2</sup>

  
 James F. Hinchman  
General Counsel

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<sup>2</sup>Although Silco also protests the current RFP's requirement of 4,029 pistons as excessive of the agency's "absolute minimum" need, the protester has not provided any evidence to support its allegation. The Air Force has provided documentation that shows that the RFP's quantity reflects its minimum current demand and that the agency is reviewing the possibility of restructuring the award to provide for a basic quantity of 2,000 pistons and an option quantity of 2,029 pistons.